

Running Head: School Safety and Security

Leading Community Risk Reduction

School Safety and Security: Are We Prepared?

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January 2007

**Certification Statement**

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

Signed: \_\_\_\_\_

## **Abstract**

Uncertainty regarding the collaborative role of the Whitehall Fire Department (WFD) with other public agencies when responding to an incident at a Whitehall City School has been an ongoing concern. This uncertainty may lead to the improper deployment of resources during an emergency within the school district.

The purpose of this paper was to identify the roles and responsibilities of the WFD in the Whitehall City Schools Comprehensive School Safety Plan (WCSCSSP). Descriptive research was used to answer the following questions: Who are the stakeholders involved in an emergency response to a Whitehall City School? What lead roles will the WFD assume during an emergency response to a Whitehall City School? What are the areas of vulnerability for the WFD in respect to the resources needed to facilitate the lead and support roles in the WCSCSSP?

The research focused on stakeholder identification, interviews and examination of the WCSCSSP. Interviews with the Whitehall City Schools Superintendent and WFD Operations Fire Chief were conducted to identify stakeholders and discuss resources needed during an emergency response within the school district.

Findings indicated the WFD has a limited ability to self-sustain prolonged fire operations. Once resource needs are identified, a system for acquisition through mutual aid agreements with surrounding municipalities is implemented. It was recommended the WFD develop proactive strategies, including worst case scenarios, with stakeholders to manage risk for Whitehall City Schools.

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## **Introduction**

### **School Safety and Security: Are We Prepared?**

An emergency response to a school can evoke fear and loathing in the most experienced first responder. The reason is simple; errors in protecting the safety of children or mistakes in caring for their health and welfare can distress the public and incite the rage of parents, educators, and the media. In the midst of a school crisis, the central goal of all first responders is to ensure the safety of the students and staff. A comprehensive school safety plan can assist the first responder in facilitating effective action during the first critical moments of a school crisis.

Uncertainty regarding the collaborative role of the Whitehall Fire Department (WFD) with other public agencies when responding to an incident at a Whitehall City School has been an ongoing concern. This uncertainty may lead to the improper deployment of resources during an emergency within the school district.

The purpose of this paper is to identify the roles and responsibilities of the WFD in the Whitehall City Schools Comprehensive School Safety Plan (WCSCSSP). Descriptive research will be used with the following research questions: Who are the stakeholders involved in an emergency response to a Whitehall City School? What lead roles will the WFD assume during an emergency response to a Whitehall City School? What are the areas of vulnerability for the WFD in respect to the resources needed to facilitate the lead and support roles in the WCSCSSP?

## **Background and Significance**

On Tuesday, April 20, 1999, Eric Harris and Dylan Klebold redefined the national agenda on gun control measures and school safety when they opened fire on their

classmates at Columbine High School. The pair killed 12 students, one teacher, and wounded 24 others before committing suicide; perpetrating the second deadliest attack on a school in United States history (Wikipedia the Free Encyclopedia, n.d.). As a direct result of the Columbine massacre, at least 24 states, as well as the U.S. Senate and House of Representatives, drafted legislation or revised existing gun control and school safety bills (Danitz, 1999).

In 1999, the 123<sup>rd</sup> General Assembly of Ohio enacted Amended Substitute Senate Bill Number 1, which addressed school safety and security. The Senate Bill required every school system in the State of Ohio to adopt a comprehensive school safety plan for each building in their district. As a result, the Whitehall City Schools in conjunction with: the Whitehall School Resource Officer, The Ohio Resource Network for Safe and Drug Free Schools, The Whitehall Police Department and the WFD developed the WCSCSSP.

This research is significant for two reasons. First, it will enable the WFD to identify community stakeholders who have a vested interest in risk reduction initiatives for the Whitehall City School District. This vital information will enable the WFD to develop a greater awareness of stakeholder concerns and expectations, building support and creating positive relationships with these stakeholders to aid in the development of risk reduction initiatives for the Whitehall City Schools.

Second, this research will provide insight into the vulnerability of the WFD when responding to a school emergency within the city limits of Whitehall, Ohio. By identifying the lead and support roles of the WFD in the WCSCSSP, the most serious risks can be prioritized. In addition, the strengths and weaknesses of the WFD's overall ability to respond to an emergency incident in an educational occupancy can be assessed.

This research project relates to the role of the executive fire officer leading and facilitating risk reduction initiatives within the community; a key element in the community risk reduction process presented in the Leading Community Risk Reduction course at the National Fire Academy (NFA). This course portrays the executive fire officer as a safeguard of citizens, championing risk reduction initiatives within the community (National Fire Academy [NFA], 2005, p. SM 1-88). This research project also relates to the United States Fire Administration (USFA) operational objective of the fire department leading and promoting a comprehensive, multi-hazard risk reduction plan within the community (NFA, 2003, p. II-2).

### **Literature Review**

The literature review will summarize the findings of other researchers that have published findings related to maintaining a balance of safety and security in the school environment in three areas. First, the need for strategic planning and risk management will be examined. Second, supporting legislation and recommendations of agencies associated with school safety will be reviewed. Third, the use of stakeholder analysis will be examined to identify the organizations or people that will require the support of the WFD within the context of the WCSCSSP.

### **Strategic Planning and Risk Assessment**

In 1958, the death of 92 children and three nuns at the Our Lady of Angels Catholic Elementary School Fire in Chicago, Illinois, brought national attention to the issue of fire safety in schools. More recent events, such as the Columbine or Jonesboro school shootings have brought similar national attention to school place violence. Alex

Szachnowicz (2003) highlights the importance of balancing fire related challenges with the need to maximize security in the educational occupancy. Szachnowicz explains that both violent crime and fire-related emergencies have an impact on the safety and security of students. Risk reduction initiatives that address both the security needs and fire-related concerns of the students and staff in schools are necessary.

Strategic planning and the performance of a risk assessment for schools is supported by Scanlon (2000), who cautions school administrators that emergency planning for schools, while important, can be flawed. School administrators must consider that a school evacuation is not the proper reaction to all emergencies, and recognize that it may be appropriate to shelter students at school until the incident is resolved or further instructions are received from emergency responders.

“Perhaps the main social benefit of systematic risk assessment is that it allows a greater degree of confidence to be attached to real world uncertainties” (Johnson, 2005, p. 2). In *Unknown unknowns: Risk assessment and UK fire services*, Eugene Johnson (2005) breaks down risk assessment into two basic types of systems behavior: open system and closed system. The fundamental difference between an open and closed system is that in a closed system, the process to achieve the final outcome is determined explicitly by the initial conditions. In an open system, the risk assessor can never have perfect knowledge of all the variables of the event and therefore the same final outcome can be achieved by a number of different initial conditions and processes. The reason for this differentiation is the development of a complete systems theory to achieve greater reduction in risk.

The significance of these open system variables becomes evident for the fire service when applied to emergency incidents. No risk assessor can ever have a precise indication of an events outcome; however, by showing the properties of the whole hazard as opposed to the individual elements or component parts that make-up the hazard, generic incident types for training and preplanning purposes can be develop in order to reduce the impact of an event.

Katherine Filippin and Lachlan Dreher (2004) has developed and outlined a risk assessment methodology for major hazard facilities. Filippin and Dreher maintain that, for the activities in which they are involved, risk analysis is the responsibility of all personnel working within a facility. Their approach to risk management seeks to ensure a full understanding of the risks associated with the major hazards of a facility, and develop a framework that will minimize the impact of risk to the business, the environment and the community. The significance of Filippin and Dreher's risk assessment methodology for the fire service is apparent in the emergency response assessment component. Emergency response requirements will be identified through site inspections and code enforcement, education and training for first responders with facility personnel, as well as consultation with area experts. Filippin and Dreher state that at least two levels of response readiness should be developed and maintained: generic response plans and hazard specific response plans. The development of the former should include probable threat matrixes and a potential for the escalation of the incident, the facility's engineered systems for mitigating the incident, on-site procedures for emergency response and evacuation of the facility, and facility personnel critical to the command and control of

the incident. The hazard specific response plans should provide information unique to that specific-type incident.

In summary, the literature reviewed in relation to strategic planning and risk assessment confirms the need for school administrators and first responders to work collaboratively in training and improving the WCSCSSP. The literature review highlights the importance of strategic planning and risk reduction initiatives within the school in order to balance the safety and security needs of students and staff in educational occupancies.

### School Safety Legislation and Supporting Literature

The review of relevant school safety literature underscores the importance of school crisis planning. The United States Department of Education offers a general framework for the development of a comprehensive school safety plan that breaks down the crisis management cycle into four distinct phases: mitigation and prevention, preparedness, response and recovery. Mitigation and prevention addresses what school staff and administrators, in cooperation with police, fire, and other public safety agencies, can do to reduce or eliminate risk. Preparedness focuses on the process of planning for and testing evacuation, lockdown and other school safety drills, including worst case scenarios. Response concentrates on the initial actions taken by school staff during a crisis, and how the standard operating procedures (SOP's) of first responders will integrate with school protocols to mitigate an incident. The objective of the recovery phase is to restore the learning environment by re-establishing a sense of emotional safety and security in the school (U.S. Department of Education, 2003).

In 1999, the 123<sup>rd</sup> General Assembly of Ohio enacted Amended Substitute Senate Bill Number 1 which addressed school safety and security. The Senate Bill required every school system in the State of Ohio to adopt a comprehensive school safety plan for each building in their district. In 2005, the 126<sup>th</sup> General Assembly of Ohio enacted Ohio House Bill 422 addressing the need for balancing safety and security in the school environment. House Bill 422 pertains to all public and non-public school buildings from pre-school to high school. Unlike the traditional fire drill, which leads to the evacuation of the building, as required by the Ohio Fire Code, this latest House Bill allows school administrators to direct students to other areas of safe refuge within the school building (Ohio General Assembly, 2006). This new legislation represents a significant change to school safety policies and the mindset of fire department first responders. In states piloting delayed evacuation programs, critics feel that the short timeline of a fire does not allow sufficient time for school staff to operate in a multi-phase manner. Instead, they believe the process of evacuating building occupants to an area of safe refuge while others investigate the source of the alarm is too time consuming and exposes students and staff members to unnecessary risk. Dennis Andrist of the Faribault Fire Department states that in Faribault, Minnesota, the fire fighters strongly disagree with the decision of a delayed evacuation of a school in the event of a fire alarm. If an alarm signals a true emergency, the delay in evacuating the building exposes students and staff members to a higher risk of injury or death. Supporters of the delayed evacuation concept maintain that through the engineering of fire protection systems, improved building construction, code enforcement and education in the community, a delayed evacuation policy can be implemented and conducted safely (Kroll, 2003).

In summary, while there is a growing body of literature on school crisis management, an appropriate framework that quantifies the best practices of managing a school crisis currently does not exist. Prior to the mid-1990's, safety and security in the classroom was not a high priority for school administrators. Schools were focused on education. However, recent concerns over school crime and violence have prompted many federal, state and local agencies to take various measures to prevent or reduce violence and breaches of security within schools.

### Stakeholder Analysis

By identifying and assessing the expectations of stakeholders prior to a school crisis, the WFD will be able to recognize the roles and objectives of these different groups during an emergency response to an educational occupancy. This process of stakeholder analysis contributes to the overall mission of the WFD by allowing the most efficient utilization and deployment of resources to support relevant groups in mitigating hazards in a school facility. This concept of stakeholder analysis is supported by Allen and Kilvington (2001) who suggest that the stakeholder analysis process is conducted in three distinct phases: Identification of stakeholders, the determination of the stakeholder interests, importance and influence, and the establishment of stakeholder priorities for involvement. Identifying and listing stakeholder groups aids in recognizing important groups that may otherwise be overlooked, the resources that group will likely commit and establish their priority of involvement during an incident.

Research conducted by Enserink (2000) underscores the need for recognizing the value of stakeholders. The knowledge and experience of stakeholders, if used correctly,

helps to refine the problem area and enrich the solutions for the problem-owner's dilemma. If neglected, stakeholder values can be the main source of opposition, fostering a resistance to change and hampering the successful completion of a project.

Stakeholders that are both important and influential must be fully engaged in the governance and steering of the project if it is to succeed. Murdock (2001) indicates that the interaction between the fire department and stakeholders can be highly beneficial to the success of a project. Conversely, he cautions that fire departments not engaged in the identification of stakeholders and the significance of their power and influence risk the consequences of the ignored or discounted individuals and groups.

In summary, stakeholder analysis is the essential first step in identifying project participants and assessing the importance and influence of individuals or groups. The Whitehall City School District needs the meaningful involvement of administrators, staff members and other school/community partners, such as the WFD, to avoid operating in a vacuum. The literature review directly correlates the success of a project to the understanding and engagement of project stakeholders. It is only when information about conditions in the school are openly exchanged between stakeholders that protective measures of the identified risk can be targeted to institute systemic changes in the school setting.

## **Procedures**

The research for this topic was gathered using the descriptive research method. The methodology of the research focused on the identification of stakeholders, personal interviews with stakeholders, and an examination of the current WCSCSSP. Initially, the researcher conducted an unstructured personal interview with Judith Dobbert-Meloy,

Whitehall City Schools Superintendent. This was used to identify the groups and individuals that have an interest in the WCSCSSP. Representatives from each group were identified for later interviews. A copy of the WCSCSSP was obtained for detailed examination.

Next, a detailed examination of the WCSCSSP was performed by the researcher and representatives of the Whitehall City Schools Safety Committee. The committee aided the researcher in clearly identifying the lead agencies responsible for specific school emergencies as outlined in the WCSCSSP. Once the lead agency for specific school emergencies was identified, a structured interview with the appropriate agency representative was conducted. The interviews focused on the lead agency's responsibility during a school crisis, and the expectations of that agency in relation to the support role of the WFD in mitigating the situation.

Finally, an unstructured interview was conducted with the WFD Operations Fire Chief, Preston Moore. The discussion focused on the resources needed to adequately facilitate the lead and support roles of the WFD with other public agencies when responding to an incident at a Whitehall City School. The expectations of the stakeholders were discussed at length to determine what resources the WFD currently possess and what resources will be acquired and utilized through mutual aid agreements with surrounding municipalities.

### **Limitations and Assumptions**

The research was limited to the City of Whitehall, Ohio, public school system. It was found that the private school system in Whitehall, Ohio, lacked any form of strategic

planning in regards to school safety and security. Because of the lack of strategic planning, the private school system was excluded from the study. It is assumed that all stakeholder representatives interviewed are proficient in their area of expertise and the results of the interviews are accurate and reliable. It is assumed that the stakeholders interviewed were able to effectively represent the views and concerns of their organizations.

### **Definition of Terms**

**Action Management Model** – A basic framework for how the organization functions and provides on-going service to the customer

**Automatic Aid** - A plan where communities agree to automatically support one another by providing assistance in the case of fire or other emergencies, in which the services of equipment and fire personnel will be used to cooperate and act to mitigate an emergency.

**Emergency Action Drill** – An emergency action drill is a pre-rehearsed drill that will confront emergency responders with tactical environments where the first responder is forced to make critical decisions without being placed in immediate danger.

**Mutual Aid** – A plan where communities agree to mutually support one another by providing assistance in the case of fire or other emergencies, in which the services of equipment and fire personnel will be used to cooperate and act to mitigate an emergency.

**Stakeholder** – Any person or organization directly involved with ensuring the safety, security and well-being of the Whitehall City School staff and students.

**Standard Operating Procedure** – Organizational directives that establish a course of action stated and described in written form.

Whitehall City Schools Comprehensive School Safety Plan – School safety plan used by the public school system within the City of Whitehall, Ohio that guides the school staff and first responders in performing necessary tasks to facilitate effective action in response to a school crisis.

## **Results**

**Question 1.** Who are the stakeholders involved in an emergency response to a Whitehall City School?

The following organizations have been identified as having involvement during a crisis involving a public school within Whitehall, Ohio.

1. WFD
2. Whitehall Police Department
3. Columbus Fire Department
4. Whitehall City School Administrators & Staff
5. Whitehall City Schools Counseling Team
6. City of Whitehall Office of Resource Coordinator

The representatives contacted and interviewed from each organization are listed in appendix A.

**Question 2.** What lead roles will the WFD assume during an emergency response to a Whitehall City School?

The Whitehall City Schools Safety Committee has designated the WFD as the lead organization for the following WCSCSSP incidents involving a public school within Whitehall, Ohio.

1. Hazardous Materials Operation
2. Emergency Medical Issues
3. Incidences of Child Abuse / Neglect
4. Fire / Emergency Evacuation
5. Bomb Threats (Does not include firearms)
6. Utility Emergencies

**Question 3.** What are the areas of vulnerability for the WFD in respect to the resources needed to facilitate the lead and support roles in the WCSCSSP?

The WFD, based on the incident type, size, complexity, and resources needed to mitigate the hazard, has a limited ability to self-sustain a prolonged fire operation. Once resource needs have been established, based on incident type, a system to acquire those resources through mutual aid agreements with surrounding municipalities will be implemented. Based on the unstructured interview with the WFD Operations Fire Chief Preston Moore, there are six primary areas of concern for resource acquisition and allocation for the WFD. These areas of concern are: staffing, fire department communications, fire company operations, emergency medical services (EMS) operations, special operations and training.

### **Staffing**

The WFD recognizes that proper minimum staffing levels are essential to the operational effort. Through mutual aid agreements with surrounding municipalities, the WFD strives to meet the National Fire Protection Association (NFPA) 1710 guidelines.

The WFD fire suppression resources can currently be deployed to provide for the arrival of a fully staffed initial engine company within a 4-minute response time; however, because of staffing resource constraints, the WFD must rely heavily on mutual aid to deploy an initial full or additional alarm assignment. Other types of fire companies equipped with specialized apparatus and equipment determined by the tactical hazards, high-hazard occupancies, high incident frequencies, geographical restrictions, or other impeding factors will also need to be deployed using the mutual aid agreements.

### **Fire Department Communications**

Emergency dispatchers are the initial contact in managing a call for service; acting as the conduit between the person requesting assistance and those that provide it. The WFD currently employs four emergency dispatchers to transmit and manage communications for all fire and EMS equipment responding to an emergency incident within the city limits of Whitehall, Ohio. The 24 hour workday is split into two shifts; a day shift and a night shift. Each shift is staffed by one emergency dispatcher that performs both call taking and dispatching duties. The emergency dispatchers are indirectly supervised by the WFD Operations Fire Chief. Due to staffing constraints, emergency dispatchers have a limited capacity to simultaneously manage multiple emergency incidents. Because of only one emergency dispatcher on duty per shift, the WFD does not meet NFPA 1221's recommendation to assign a dedicated emergency dispatcher to a major incident.

The emergency communications operation for the City of Whitehall is fragmented. Each city department maintains their own individual communication system

that is disjointed and does not have the ability to facilitate operational interoperability.

The gaps are so severe that the current emergency communication network does not allow departments within the city to communicate with one another other via radio.

### **Fire Company Operations**

The WFD fire company operations are organized to ensure a coordinated system response that will match the needs of an emergency incident. Deployable resources include, but are not limited to, a shift duty officer, an engine company staffed with four fire fighters and an advanced life support (ALS) medical unit. Additional fire equipment can be assigned to an emergency response utilizing the automatic aid and mutual aid agreements with surrounding municipalities. All personnel assigned to an apparatus are supervised by a fire officer, who is in turn supervised by the shift duty officer on all initial full alarm and additional alarm assignments. Because of limited resources and staffing constraints, the WFD uses the established automatic aid or mutual aid agreements with surrounding municipalities for all fire responses in Whitehall, Ohio. The purpose of this is to meet the NFPA 1710 guidelines for the number of personnel initially required to successfully control and mitigate an incident. An action management model and SOP's are used to provide a standard for the delivery of service when responding to an incident within the Whitehall City limits.

### **EMS Operations**

The WFD EMS operation is organized to ensure the coordinated arrangement of health and safety resources that provides timely, effective, pre-hospital care to the sick

and injured. The WFD emergency medical capability includes deploying an ALS unit on all initial full alarm and additional alarm assignments. SOP's are used to provide for the delivery of care by EMS personnel when responding within the Whitehall City limits or surrounding municipalities. Increased calls for EMS services in and around Whitehall, Ohio, are outstripping fire-based EMS resources. EMS call volume for the WFD has increased on average 3% per year from 2000 to 2005 (City of Whitehall, 2006). Because of this, the WFD relies heavily on the automatic aid and mutual aid agreements with surrounding municipalities.

### **Special Operations**

Technical rescue and hazardous materials operations are extremely complex disciplines that target low-frequency, high-hazard incidents. The WFD recognizes the tactical challenge of special operations as more structures and people are exposed to the risk of a building collapse or the need for some type of specialized rescue; however, because of limited funding and staffing constraints, the WFD is unable to effectively respond to an emergency that requires a multi-disciplined approach to a special operations incident. The WFD cannot self-sustain a special operations incident and will therefore assume a support role with the Columbus Division of Fire being relied upon to control and mitigate the event.

### **Training**

Training in all its forms is the single most important function for the WFD to maintain the operational readiness of its firefighters. Comprehensive training often makes

the difference between success and failure during an emergency incident; when time is of the essence and decisions must be quick and decisive. In addition to the daily operations training that reinforces basic firefighting skills used on routine emergencies; the WFD recognizes a need for more specialized training focusing on low-frequency, high-hazard emergency incidents. Because of a lack of specialized training and SOP's when responding to an incident in an educational occupancy, the WFD is particularly vulnerable. A lack of SOP's and the unknown and untested ability to facilitate operational interoperability with other jurisdictions and city departments when responding to a school emergency makes the WFD susceptible to mistakes.

### **Discussion**

A considerable amount of evidence supports the need for strategic planning on the issue of an emergency response to a public school in Whitehall, Ohio. The operational goals and strategies considered should be assessed based on the issues and target hazards identified during a review of the WCSCSSP. The idea of strategic planning used to identify exposures to risk and allow the WFD to develop a comprehensive framework of SOP's to ensure an effective emergency response is supported by Filippin & Dreher (2004). Johnson (2005) also supports this theory, stating that every emergency incident a fire department responds to is, to a lesser extent, an open system where the risk assessor will never have complete knowledge of all the variables that will effect the containment and mitigation of the incident. To aid in bringing the situation under control, specific target hazard and generic response SOP's for training and pre-planning of the facility should be developed. In addition, training can provide a feedback loop that will offer continual improvements in emergency response SOP's by testing their actual

effectiveness. The WFD must spend time focusing on the public issues that drive the strategic planning of the organization. In addition the WFD administrators must remember that a fire department exists to serve the public, and therefore maintains a responsibility to focus on the primary issues concerning the community in an effort to fulfill the overall mission of the fire department and create future excellence by continuously improving customer service (Wallace, 2006).

The outcome of this applied research project is compelling and confirms the need for the WFD to work collaboratively with the identified stakeholders to balance the safety and security needs of the staff and students in educational occupancies. The Whitehall Public School System must offer students a safe and secure environment conducive to learning, and teachers an atmosphere where they can carry out the fundamental mission of teaching. However, the responsibility of creating this setting lies not only with school administrators, but all stakeholders involved with school safety and security (Scanlon, 2000). It is imperative for the WFD to embrace the diversity and range of stakeholders involved with the delivery of services to the school system and that the interaction of stakeholder groups are vitally important to improving the safety and security of the Whitehall City Schools (Murdock, 2001). By understanding stakeholders, the WFD can collaboratively work with other agencies to properly deploy resources to support the containment and mitigation of the crisis. The neglect of the stakeholder can lead to opposition and resistance among agencies, which may result in a fragmented or improper response; ultimately leading to failure (Enserink, 2000).

Solutions start with the recognition of a problem. In the case of this applied research project, it is the recognition that both security and fire-related emergencies will

directly impact the safety and security of students attending a Whitehall City School. By working collaboratively, the WFD and identified stakeholders can develop a strategic approach to the management of risk in an educational occupancy and address credible threats faced by students and staff of the Whitehall City Schools.

### **Recommendations**

Based on this applied research, the WFD should develop a strategy to be proactive with the Whitehall City Schools. The focal point of this strategy should be on the WCSCSSP, with a key element being the formation of a coalition of stakeholders who have a vested interest in risk reduction initiatives for the Whitehall City School System. It is recommended that the WFD develop and implement both generic SOP's and target specific SOP's for emergency responses to an educational occupancy.

It is also recommended that the WFD develop and continually reevaluate, in conjunction with the identified stakeholders, emergency action drills for educational occupancies. The use of emergency action drills for training in response to an incident at an educational occupancy will confront emergency responders with an unexpected tactical environment where it is necessary to react to a crisis without being placed in direct danger. Emergency action drills will allow the WFD and identified stakeholders to preplan incidents in an effort to minimize risk by attempting to work through any possible contingencies, including worst case scenarios. The emergency action drills should also be used to provide a feedback loop to improve SOP's and examine the actual effectiveness of emergency responders.

While beyond the extent of this applied research project, the WFD, in conjunction with the identified stakeholders, should assess the operational interoperability of its

emergency communications network. An interoperable emergency communications network should have the ability to integrate the radios of local law enforcement, fire and EMS agencies, along with other local, state and federal public safety organizations.

Finally, further examination of the vulnerability of the Whitehall City Schools is warranted. This also is an important area outside the scope of this applied research project, but needs to be examined to identify the most serious hazards and the causal factors contributing to the severity of those hazards. By identifying the most serious hazards and their causal factors, the WFD and identified stakeholders can establish risk reduction priorities based on the potential impact to the Whitehall City Schools and identify desired outcomes from the risk reduction initiatives.

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## Appendix A

### **Representatives of Stakeholder Organizations**

<u>Organization</u>	<u>Representative</u>
Columbus Fire Department	Battalion Chief Vingle
Whitehall City Schools	Judith Dobbert-Meloy
Holy Spirit Elementary	Linda Saelzler
Whitehall City Schools Safety Committee	Brian Hamler
Sub-committee Chair	Mark Trace
Whitehall Police Department	Ralph E. Rickles
Whitehall Fire Department	Preston Moore
Whitehall City Schools Counseling Team	Jenifer Peters
Whitehall City Resource Coordinator	Linda Luft
Whitehall School Resource Officer	Spencer Salyers